

LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A composition for making breathable films, the composition comprising:

(i) 20 - 50 %, based on the weight of the total composition, a bimodal polyethylene composition [[,] made using Ziegler-Natta catalysis, further comprising:

(i-a) a first low molecular weight component, which is a homopolymer of ethylene or a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a melt flow rate MFR₂ of 50 to 500 g/10 min and a density of 940 to 975 kg/m³, the first component being present in the bimodal polyethylene composition in an amount of 37 to 48 % by weight, and

(i-b) at least a second component, which is a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a higher molecular weight, a lower melt index and a lower density than the said first component, the second component being present in the bimodal polyethylene composition in an amount of 52 to 63 % by weight, so that the said bimodal polyethylene composition has a melt flow rate, determined according to ISO 1133 at 190°C, MFR₂ in the range of 0.1 to 4.0 g/10 min, MFR₂₁ in the range of 15 to 200 g/10 min and a density of 918 to 935 kg/m³,

(ii) 40-70 %, based on the weight of the total composition, a particulate filler, and

(iii) 0-30 %, based on the weight of the total composition, another olefin-based polymer,

~~wherein the composition is made using Ziegler-Natta catalysis.~~

2. (Original) The composition according to Claim 1, wherein the other olefin based polymer is selected from the group of homo- and copolymers propylene, 1-butene and 4-methyl-1-pentene.

3. (Previously presented) The composition according to Claim 1, wherein the other olefin based polymer is a propylene homo- or copolymer.

4. (Original) The composition according to Claim 3, wherein the composition comprises of 5 to 20 %, based on the weight of the total composition, of the said propylene polymer.

5. (Original) The composition according to Claim 1, wherein the content of the particulate filler is 55 to 70%.

6. (Previously presented) A composition according to claim 1, wherein the particulate filler is calcium carbonate.

7. (Previously presented) The composition according to claim 1 wherein said bimodal polyethylene composition has the following properties (a) to (d):

(a) density from 912 to 935 kg/m³;

(b) melt flow rate MFR₂ from 0.1 to 0.8 g/10 min;

(c) melt flow rate, determined according to ISO 1133 at 190°C, MFR₂₁ from 15 to 70 g/10 min; and

(d) flow rate ratio MFR₂₁/MFR₂ from 60 to 120.

8. (Original) A composition according to Claim 7, wherein the bimodal polyethylene composition has:

(e) a weight average molecular weight ~ from 150000 to 300000 g/mol;

(f) a ratio of the weight average molecular weight to the number average molecular weight (M_w/M_n) from 7 to 30; and

(g) a content of alpha-olefin comonomer units of 2 to 5 % by mole.

9. (Previously presented) The composition according to Claim 7, wherein the other olefin based polymer is a propylene homo- or copolymer.

10. (Original) The composition according to Claim 9, wherein the composition comprises of 5 to 20 %, based on the weight of the total composition, of the said propylene polymer.

11. (Previously presented) The composition according to Claim 7, wherein the content of the particulate filler is 55 to 70 %.

12. (Previously presented) A composition according to Claim 7, wherein the particulate filler is calcium carbonate.

13. (Currently amended) A method for making films comprising: using a composition comprising:

(i) 20 - 50 %, based on the weight of the total composition, a bimodal polyethylene composition made using Ziegler-Natta catalysis, further comprising:

(i-a) a first low molecular weight component, which is a homopolymer of

ethylene or a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a melt flow rate MFR₂ of 50 to 500 g/10 min and a density of 940 to 975 kg/m³, the first component being present in the bimodal polyethylene composition in an amount of 37 to 48 % by weight, and

(i-b) at least a second component, which is a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a higher molecular weight, a lower melt index and a lower density than the said first component, the second component being present in the bimodal polyethylene composition in an amount of 52 to 63 % by weight, so that the said bimodal polyethylene composition has a melt flow rate, determined according to ISO 1133 at 190°C, MFR₂ in the range of 0.1 to 4.0 g/10 min, MFR₂₁ in the range of 15 to 200 g/10 min and a density of 918 to 935 kg/m³,

(ii) 40-70 %, based on the weight of the total composition, a particulate filler, and
(iii) 0-30 %, based on the weight of the total composition, another olefin-based polymer ;

~~— wherein the composition is made using Ziegler-Natta catalysis.~~

14. (Currently amended) A breathable polymer film, which film comprises a composition comprising:

(i) 20 - 50 %, based on the weight of the total composition, a bimodal polyethylene composition made using Ziegler-Natta catalysis, further comprising:

(i-a) a first low molecular weight component, which is a homopolymer of ethylene or a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a melt flow rate MFR₂ of 50 to 500 g/10 min and a density of 940 to 975 kg/m³, the first component being present in the bimodal polyethylene composition in an amount of 37 to 48 % by weight, and

(i-b) at least a second component, which is a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a higher molecular weight, a lower melt index and a lower density than the said first component, the second component being present in the bimodal polyethylene composition in an amount of 52 to 63 % by weight, so that the said bimodal polyethylene composition has a melt flow rate, determined according to ISO 1133 at 190°C, MFR₂ in the range of 0.1 to 4.0 g/10 min, MFR₂₁ in the range of 15 to 200 g/10 min and a density of 918 to 935 kg/m³,

- (ii) 40-70 %, based on the weight of the total composition, a particulate filler, and
- (iii) 0-30 %, based on the weight of the total composition, another olefin-based polymer;

—~~wherein the composition is made using Ziegler-Natta catalysis.~~

15. (Previously presented) The film according to Claim 14 wherein the film has a water vapour transmission rate, measured using a Permatran W100K water vapour permeation analysis system, of more than 3000 g/m²/24 h.

16. (Previously presented) The film according to Claim 14, wherein the film has a basis weight of less than 25 g/m².

17. (Currently amended) A process for producing a breathable polymer film, comprising the steps of.

(A) providing into an extruder a composition comprising:

(i) 20 - 50 %, based on the weight of the total composition, a bimodal polyethylene composition that has been produced by a process comprising a polymerisation catalyst that is a Ziegler-Natta catalyst, further comprising:

(i-a) a first low molecular weight component, which is a homopolymer of ethylene or a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a melt flow rate MFR₂ of 50 to 500 g/10 min and a density of 940 to 975 kg/m³, the first component being present in the bimodal polyethylene composition in an amount of 37 to 48 % by weight, and

(i-b) at least a second component, which is a copolymer of ethylene and one or more C₄ to C₁₀ alpha-olefins, having a higher molecular weight, a lower melt index and a lower density than the said first component, the second component being present in the bimodal polyethylene composition in an amount of 52 to 63 % by weight, so that the said bimodal polyethylene composition has a melt flow rate, determined according to ISO 1133 at 190°C, MFR₂ in the range of 0.1 to 4.0 g/10 min, MFR₂₁ in the range of 15 to 200 g/10 min and a density of 918 to 935 kg/m³,

(ii) 40-70 %, based on the weight of the total composition, a particulate filler, and
(iii) 0-30 %, based on the weight of the total composition, another olefin-based polymer;

(B) extruding the composition to a film; and

(C) stretching the film to produce a breathable film ,

~~wherein the bimodal polyethylene composition has been produced by a process comprising a polymerisation catalyst that is a Ziegler-Natta catalyst.~~

18. (Previously presented) The process according to Claim 17, wherein the film is stretched with a stretching ratio of 3 to 10.

19. (Previously presented) The process according to Claim 17, wherein the bimodal polyethylene composition has been produced by a process comprising the steps

of:

- (i) subjecting ethylene, hydrogen and optionally comonomers to a first polymerisation or copolymerisation reaction in the presence of the polymerisation catalyst in a first reaction zone or reactor to produce a first polymerisation product having a low molecular weight with a melt flow rate , determined according to ISO 1133 at 190°C, MFR_2 of 50 to 500 g/10 min and a density of 940 to 975 kg/m³,
- (ii) recovering the first polymerisation product from the first reaction zone,
- (iii) feeding the first polymerisation product into a second reaction zone or reactor,
- (iv) feeding additional ethylene, comonomers and, optionally, hydrogen to the second reaction zone,
- (v) subjecting additional ethylene and additional comonomer(s) and, optionally, hydrogen to the second reaction zone in the presence of the said polymerisation catalyst and the first polymerisation product,
- (vi) to produce a polymer composition comprising from 41 to 48 % by weight of the low molecular weight polymer produced in step (i), and from 59 to 52 % by weight of the high molecular weight component produced in step (v),
- (vii) the composition having a melt flow rate, determined according to ISO 1133 at 190°C, in the range MFR_2 of 0.1 to 4.0 g/10 min and a density of 918 to 935 kg/m³, and
- (viii) recovering the combined polymerisation product from the second reaction zone.

20. (Previously presented) The process according to Claim 17, wherein at least part of the volatile components of the reaction medium are evaporated and removed

from the first polymerisation product before the said first polymerisation product is introduced into the second reaction zone or reactor.

21. (Previously presented) The composition according to Claim 1, wherein said first flow molecular weight component has a melt flow rate MFR_2 of 100 to 400 g/10 min.

22. (Previously presented) The composition according to Claim 1, wherein said first flow molecular weight component has a density of 945 to 975 kg/m³.

23. (Previously presented) The method according to Claim 13, wherein said first flow molecular weight component has a melt flow rate MFR_2 of 100 to 400 g/10 min.

24. (Previously presented) The method according to Claim 13, wherein said first flow molecular weight component has a density of 945 to 975 kg/m³.

25. (Previously presented) The method according to Claim 14, wherein said first flow molecular weight component has a melt flow rate MFR_2 of 100 to 400 g/10 min.

26. (Previously presented) The method according to Claim 14, wherein said first flow molecular weight component has a density of 945 to 975 kg/m³.

27. (Previously presented) The film according to Claim 17, wherein said first flow molecular weight component has a melt flow rate MFR_2 of 100 to 400 g/10 min.

28. (Previously presented) The film according to Claim 17, wherein said first flow molecular weight component has a density of 945 to 975 kg/m³.